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ABSTRACT

Vocational and technical education planners need to be aware of and utilize four commonly used types of articulation: interinstitutional articulation (that which takes place between institutions), intra-institutional articulation (coordination that occurs within an institution), horizontal articulation (cooperative planning involving one level of instruction), and vertical articulation (a term used for planning between grade levels or levels of instruction). Two models of articulated curriculum development efforts in the areas of vocational and technical education that are worthy of particular consideration are articulation projects currently underway in the State of Hawaii and in the Dallas Community College District. Articulated curriculum efforts such as these have a number of benefits; for example, they frequently result in enhanced communication and coordination among professionals, in the awarding of postsecondary credit for the mastery of courses taken at the secondary level, and in an overall increase in schools' productivity. In light of these and other benefits to be derived from articulated curriculum development, it is recommended that funding be provided for the development and implementation of a similar articulation project in the Commonwealth of the Northern Marianas. (MN)

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CURRICULUM DEVELOPMENT

and

ARTICULATION

IS IT REALLY NECESSARY?

Presented to Members of
The Western Pacific Consortium of
Boards and Education Leaders

and

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Department of Education, CNMI

February, 1985

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Curriculum Development and Articulation Is It Really Necessary?

Any discussion of curriculum and articulation requires that these terms be defined so that the communicators can begin on a common ground. Curtis and Crunkilton, authors of Curriculum - Development in Vocational and Technical Education define curriculum as:

> "The sum of the learning activities and experiences that a student has under the auspices or direction of the school." (Page 9, SLIDE 1)

The authors definition includes formal education as well as informal education. Formal education being that which occurs in a structured educational setting - such as at Mt. Carmel High School, the College of Northern Marianas or the COM/CCM Nursing School (SLIDE 2); Informal education being that which normally occurs outside of the school environment and is not part of the formal education process such as at home or church.

If you believe that education for earning a living or vocational education is a necessary part of one's total education then, it seems fair to say that vocational education can and does take place in school as well as outside of school (SLIDE 2a). Consider then that the vocational course in school is a part of the formal education of a student. This view. however, is incomplete if we do not include education for life or basic education. Basic preparation for life as part of a student's high school education may serve as a foundation for post-secondary education for earning a living. All good vocational programs include some parts of the preparation for life (SLIDE 2b). The attractiveness of incorporating reading, writing and mathematics is

the application of these basic skills while one learns the competencies of an occupation.

If you accept this basic definition of Curriculum -- "the sum of the learning activities and experiences that a student has under the auspices or direction of the school." (Slide 1), then you realize that curriculum in a high school or a college especially a community college may well be duplicated. We have had a duplication of courses, curriculum and sometimes the same movie again and again. That is not to say that showing the same film twice is not helpful--I'm sure that when planned, it can be reinforcing.

The term articulation is often used in a corrective way- as an accepted method of alleviating duplication. Let us now define articulation and the types and levels of articulation in order to see how the curriculum fits into the overall scheme of things.

What is articulation? What are the typical levels and forms of articulation? Why is articulation sorely needed in vocational-technical education?

One of the relatively recent words to enter the jargon of educators is that of "articulation." What is articulation? Webster's Seventh New Collegiate Dictionary defines the term in one way as "the action or manner of joining or interrelating. "Many educators, however, think of the term as concept or idea. Other words which are used synonymously, include "coordination," "interfacing," "cooperation," "understanding," "acquainting," "uniting," "combining," "knowing," and "involving." In addition, many view articulation as a process with varying phases. Other educators feel that articulation must always be a continuous re-cycling of sequences or phases that need to occur as

changes take place in people, changes take place in society, and changes take place in educational programs. (Zane, p. 3)

A more generally accepted definition is that articulation is a name given to this process through which high school, college or professional personnel reach agreement in the specifics of subject matter materials to be covered in occupational areas. (Emerson, p. 1) (SLIDE 3).

The general supervision and administration of public secondary schools in the Northern Marianas are vested in the Department of Education and the general supervision and administration of the College of Northern Marianas are vested in the office of the President of the College of the Northern Marianas. Public laws govern their establishment and administration but responsibilities for both lie on the members of the Board of Education. There are students, teachers, and various levels of administrators of academic and vocational programs in both systems of public education. Both systems offer or will offer the same subject matter: typing, word processing, accounting, carpentry, auto mechanics, for example. Since both systems of public education are under the governor, your territory can offer identical and/or similar kinds and levels of instruction, educational programs in both the secondary system and the college. Manley stated the issue in these words:

> Articulated effort should be a reality in order to provide the continuum of education necessary for each student to develop to his full potential without unnecessary duplication of instruction and delay in attaining his educational and career objectives. (Manley, p. 5) (SLIDE 4)

Articulation in any field of study is a serious problem. Ask any admissions and records officer at a college, a division chairperson, or instructor. What happens when a student transfers? What happens when an auto mechanics student from Rota High transfers to Marianas High, what happens when a student in carpentry at Marianas High transfers to the college of Northern Marianas to major in the same field? Placement is something like a nightmare. Also what happens when a student from the Commonwealth of the Northern Marianas transfers to a senior institution? Also what will happen as the Commonwealth of the Northern Marianas begins to consider an early admissions program. Admissions officers, counselors, teachers, and department chairpersons in Hawaii as well as in other states report difficulty in advising students. Countless hours of faculty and administrative time have been spent attempting to correctly assign incoming students who are transferring from high school to a community college or from one community college to another community college.

The "process of joining or inter-relating"--articulation may involve more than just educational institutions. Government, labor, industry, business and agriculture (GLIBA) may also be involved. For example, in inter-relating business and industry into the educational institution, the use of a one craft advisory committee to review the automotive program at Marianas High and the Commonwealth of the Marianas is highly recommended. Two separate craft advisory committees would be an unnecessary duplication of effort.

Types of Articulation (SLIDE 5)

There are a number of terms such as inter-institutional, intra-institutional, horizontal, and vertical articulation which are

commonly used as types of articulation.

1. Inter-institutional articulation is generally referred to as that which occurs between institutions. For example: A high school with another school, A community college with another community college, A community college with a high school, A university with a community college.
2. Intra-institutional is generally referred to as that which occurs within an institution. For example: The Language Arts Department of a community college with the Math Department of the same community college, The 12th grade English teachers with the 11th grade English teachers of the same high school.
3. Horizontal articulation is generally referred to as that which occurs at one level. For example: All of the 12th grade automotive instructors from Rota and Marianas high schools meeting together; All of the Business Education Teachers from Mt. Carmel, Marianas High, and Rota High meeting together.
4. Vertical articulation is generally referred to as that which occurs between grade levels or between levels of instruction. For example: All instructors of beginning and advanced typing getting together, All high school and college instructors in Auto-Mechanics meeting together.

If the College of Northern Marianas has problems of inflexibility with senior institutions when students transfer to the University of Hawaii or the University of Guam, what will happen when the College of Northern Marianas imposes those same inflexibilities upon the secondary schools? Should this be the situation?

Model Programs of Articulation

The advantage that the Commonwealth of the Northern Marianas has in articulating curriculum is being able to gain from the past experiences of other states. A number of models of articulation are available and there are two that I would like to briefly review with you.

Model 1: Hawaii: This was a 3-year statewide articulation project that started with four selected occupational areas (Slide 6).

Automechanics

Business

Drafting

Food Service

The Program of Activities included three major phases (SLIDE 7)

Phase I was an orientation and familiarization with the four selected occupational areas. Student panels identified the current problems and issues and participants discussed and reviewed sample model programs of articulation. Each participant planned individually and in teams, a program of activities. Teams included team leaders, principals, teachers, administrators, students and members of the business community.

Phase II was a seminar and conference program to share documents prepared and/or distributed as a result of Phase I, and a program to arrive at common goals and objectives for each course. Participants

formulated written team recommendations for articulation and options on how to implement them. An orientation to selected vocational programs was also included. Phase II included a series of four island-wide workshops to present and review the written recommendations developed to the wider community.

The team reports were outlined as follows (SLIDE 8):

Problems

Facts

Alternatives or Options

Recommendations

Implementation

Phase III was a seminar and conference program to prepare final drafts of team recommendations in the form of an articulation agreement, one for each area and a program of information dissemination.

The planners and implementors of this articulation project attempted a number of unique activities. First, they brought together people concerned with the four subject areas. Secondly, they assembled teams representing the University of Hawaii, the Community Colleges, the Department of Education, business and industry and students to share in the leadership in developing articulated programs. Finally, representatives were invited to participate from all geographic districts of Hawaii.

All participants indicated a responsibility and a willingness to seek out whatever techniques, whatever procedures, what-ever devices might work most efficiently in any given set of circumstances in order to best meet the needs of our clientele --the students in our

high schools and community colleges. They believed in the time tested adage--NOTHING VENTURED, NOTHING GAINED.

Model 2: Dallas County Community College District:

In 1978 Eastfield Community College of the Dallas County Community College District entered into an articulation effort designed to eliminate unnecessary duplication. They agreed upon nine specific steps in their articulation process (SLIDE 9).

1. Select Program(s)

   They checked with those responsible for vocational education at both the secondary and post secondary levels about what programs to select. They selected two programs characterized by the following:

   a. attracted a large number of students
   b. prepared students for skills in demand
   c. available at as many secondary schools as possible
   d. headed by responsible instructors

2. Identify and Inform Supervisors and Participants

   They reminded all that no teaching time would be lost and indicated the many benefits for the teachers involved. It was important to keep supervisors informed of their progress, as their support is crucial.

3. Complete a Task Analysis

   The essential competencies from an occupation need to be identified - if not recently accomplished in light of current industry needs.

4. Define Blocks, Modules, Competencies and Identify Core Competencies.

   Those competencies absolutely required of every student were identified as core competencies.

5. Develop Course Equivalencies

Once the blocks, modules, and competencies have been identified it is necessary--and possible--to develop course equivalencies between/among post-secondary campuses and, in some cases, between/among secondary and post-secondary schools. This, of course, requires official consultation and approval.

6. Share Blocks, Modules, and Competencies with Secondary Teachers

The work to this point is done by the post-secondary instructors, because it is their courses for which equivalent credit will be granted. It is now time for the secondary and post-secondary people to meet together to share the work that has been done.

7. Develop Objectives

As soon as everyone understands and agrees upon the competencies, the objectives (the specific ways to measure mastery of the competencies) must be carefully defined. This is done in small groups, each one responsible for certain blocks.

The small groups consist of both secondary and post-secondary instructors and are led by the post-secondary representative who did the initial work on those areas. It is clearly understood that the objectives must be those of the post-secondary institution; however, sharing their development with secondary teachers provides enrichment for the programs and students at both levels.

8. Develop Articulation Implementation Procedures

If procedures for granting a variety of non-traditional credit do not exist, it is necessary to develop and disseminate such procedures sometime before the articulation materials have been completed.

An ad hoc committee should be formed to develop the procedures for awarding equivalent credit through articulation. Because there are a number of people involved in the entire procedure, it is suggested that appropriate representatives be included.

It is helpful if the members of this committee receive as much information as possible about their task and similar work from other institutions before the first meeting.

It is then possible for the group to plan the step-by-step procedures necessary for a student to receive credit through articulation within the structure of the institution involved. It is vital that everyone involved in the process contribute to the planning and receive the final results.

9. Assemble and Print Manuals

The final step in the process is the preparation of materials for printing. This includes the development of a Student Profile, a form listing each competency with a system for recording mastery.

A third Model is really a concept recently promoted by the American Association of Community and Junior Colleges. It is called the 2+2 Program. Its official title is the "2+2 Tech Prep/Associate Degree Program: A Working Degree for America." (Parnell)

This Concept advocates taking a step beyond current high school/college articulation agreements. It is to target ordinary students - the high school student not part of the college prep track; it is offering that large group (almost 2/3 of high school graduates), a quality 4-year program (2 years in high school and 2 years in a community college) that will provide access to a mid-level range of career choices. It calls for a blending of general education and vocational education. Its foundation is basic skill development in math, science, communication and vocational education -- all in an applied setting and all articulated. Procedures to implement the 2+2 program were not described by the author, but reported to have been implemented in the State of Virginia.

Benefits of Articulation

The major benefit of articulation is the awarding of post-secondary credit for the mastery of courses taken at the secondary level. But while preparing to accomplish this, there is the additional benefit of developing materials and procedures to award the credit. This procedure in turn can be used not only to develop new courses/curricula, but also to clarify and review present ones.

Another benefit is the communication and coordination at both the secondary and post-secondary levels. The meetings and intensive discussion between teachers, counselors, supervisors and the community will increase communication which should be beneficial to your students. A competency profile handed out to an employer listing and validating skills obtained would surely please any employer.

Of course there is the overall increase in the schools' productivity by the prevention of duplication of effort and increased student interest.

Based on the above and other experiences, I would like to recommend the following to you: (SLIDE 10 and 11)

1. That funds be provided for articulation.
2. That you see to it that a responsible individual is appointed to direct such a project.
3. That the College of Northern Marianas take the leadership since they will be granting the credit.
4. That, if students are indeed transferring to Guam Community College, University of Guam or the College of Micronesia, these institutions and other institutions most directly involved be invited to participate.
5. That definite timetables be established when an articulation project starts.
6. That, once levels competencies are agreed upon, the Board of Education set specific policy about the level of mastery and number of competencies needed for credit.
7. That one or more selected occupational programs be involved in the first round of articulation.
8. That teachers begin to define the competencies in their programs and courses if you have not already done so. The National Network for Curriculum Coordination in Vocational and Technical Education, Western Curriculum Coordination Center and your State Liaison Representative, Joe Jetnil, have a number of available competency lists to assist you.
9. That, once initiated, articulation efforts be communicated via newsletters, conferences, inter-campus visits, etc. to insure good communication.
10. That appropriate personnel be asked to become involved and that participation initially be entirely voluntary.

In summary, may I state that if articulation efforts are to be effective:

1. There must be an attitude of mutual respect and cooperation for each instructor and toward each instructor; respect of the high school instructors for the community college instructors, respect of the community college instructor for the high school instructors, respect of administrators irrespective of whether they are at the high school level, district level, or at the community college level.
2. The work must be carried out in an atmosphere of <u>interdependence among institutions</u>, the Department of Education and the College of Northern Marianas, the vocational-technical education program in the Department of Education, and the vocational-technical education program in the College of Northern Marianas. This interdependence will grow as the proportion of the students who take their vocational-technical work in the high schools increases.
3. The work must be carried out as part and parcel of the mutual concern for providing students an opportunity to develop to their fullest potential.

Is it really necessary? Curriculum and articulation go hand in hand.

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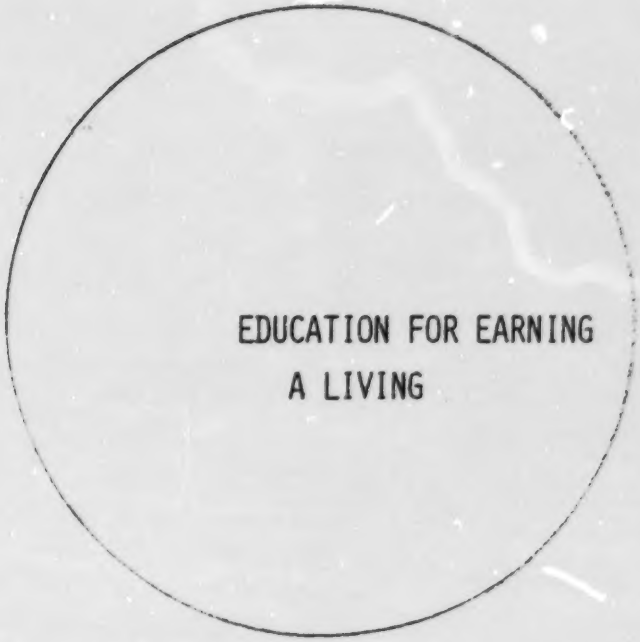
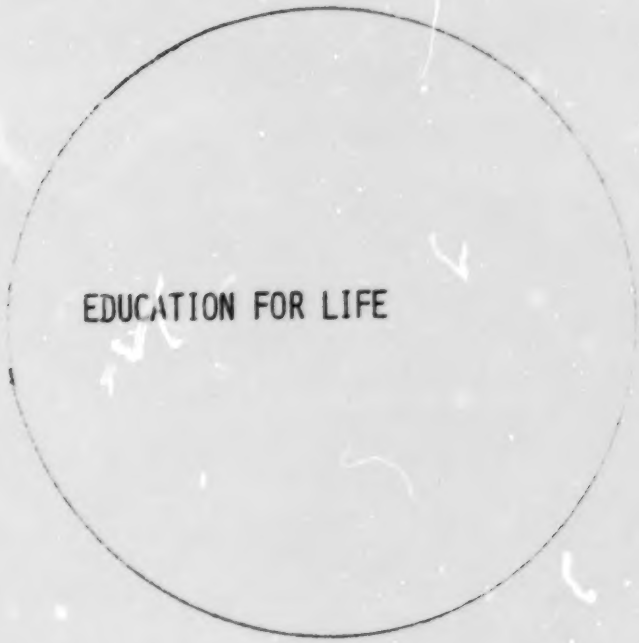
CURRICULUM

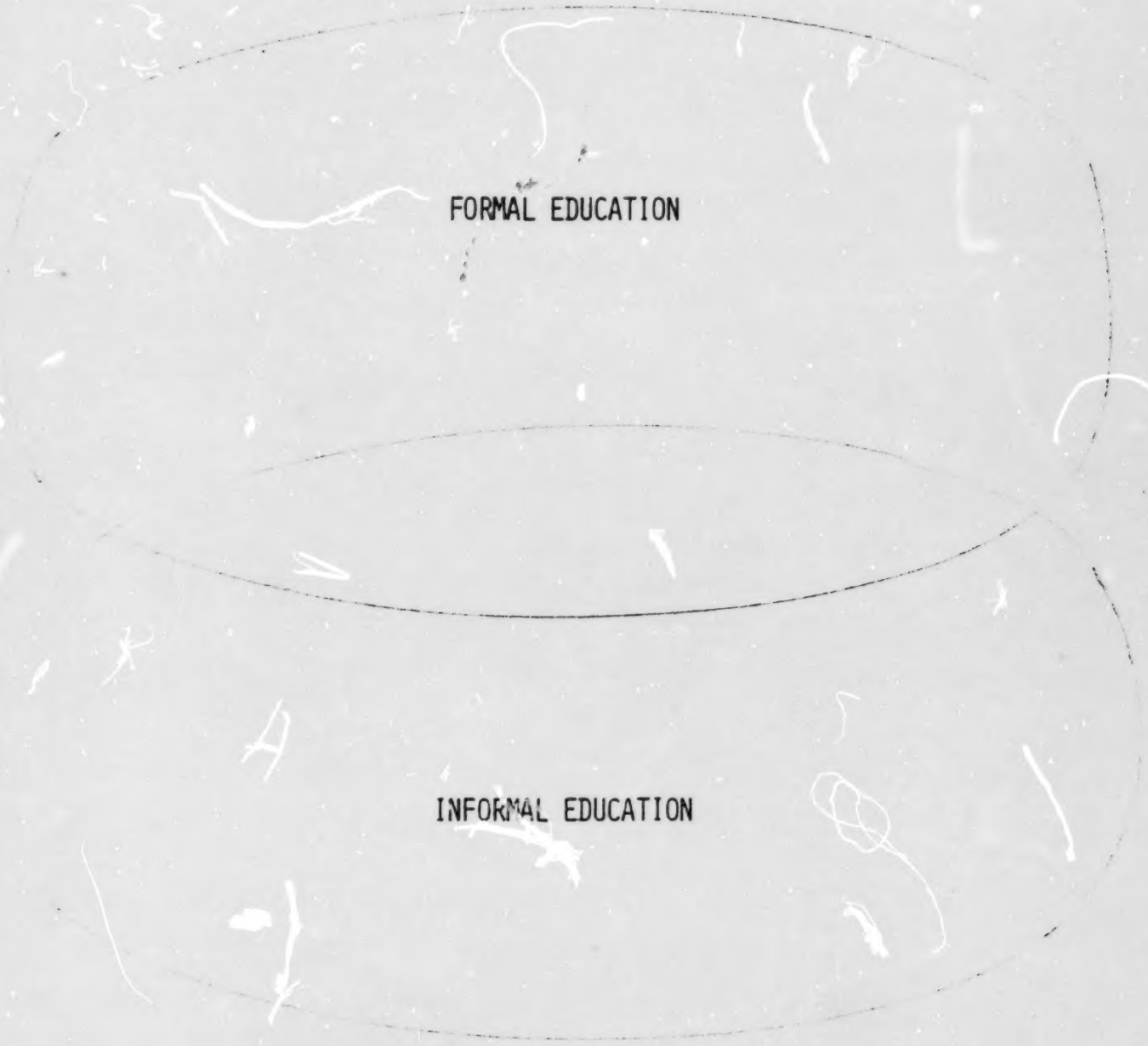
"THE SUM OF THE LEARNING ACTIVITIES AND EXPERIENCES THAT A STUDENT HAS UNDER THE AUSPICES OR DIRECTION OF THE SCHOOL."

CURTIS AND CRUNKILTON

SLIDE 2A




EDUCATION FOR LIFE


FORMAL EDUCATION
INFORMAL EDUCATION

ARTICULATION

THE PROCESS THROUGH WHICH HIGH SCHOOL, COLLEGE OR PROFESSIONAL PERSONNEL REACH AGREEMENT ON SPECIFICS OF SUBJECT MATTER MATERIALS TO BE COVERED IN OCCUPATIONAL AREAS.

DCCCD PAGE 1

ARTICULATED EFFORT SHOULD BE A REALITY IN ORDER TO PROVIDE THE CONTINUUM OF EDUCATION NECESSARY FOR EACH STUDENT TO DEVELOP TO HIS FULL POTENTIAL WITHOUT UNNECESSARY DUPLICATION OF INSTRUCTION AND DELAY IN ATTAINING HIS EDUCATIONAL AND CAREER OBJECTIVES.

(MANLEY, P.5)

TYPES OF ARTICULATION

1. INTER-INSTITUTIONAL
2. INTRA-INSTITUTIONAL
3. HORIZONTAL
4. VERTICAL

SELECTED SUBJECT AREAS

1. AUTO-MECHANICS OCCUPATIONS
2. BUSINESS EDUCATION OCCUPATIONS
3. DRAFTING OCCUPATIONS
4. FOOD SERVICE OCCUPATIONS

HAWAII

PHASE I - 2 DAYS

PHASE I - GETTING ALL IN WRITING

PHASE II - 5 DAYS

PHASE II - REVIEW AND OBTAIN WIDE INPUT

PHASE III - 4 DAYS

PHASE III - DISSEMINATION

PROBLEMS AND RECOMMENDATIONS FOR
SECONDARY SCHOOLS AND COMMUNITY COLLEGES

PROBLEM 1

FACTS
ASSUMPTIONS
ALTERNATIVES
RECOMMENDATIONS
IMPLEMENTATION

STEPS (DCCCD)

1. SELECT PROGRAM/S

2. IDENTIFY AND INFORM SUPERVISORS AND PARTICIPANTS

3. COMPLETE A TASK ANALYSIS

4. DEFINE BLOCKS, MODULES, COMPETENCIES, AND IDENTIFY CORE COMPETENCIES

5. DEVELOP COURSE EQUIVALENCIES

6. SHARE BLOCKS, MODULES, COMPETENCIES WITH SECONDARY TEACHERS

7. DEVELOP OBJECTIVES

8. DEVELOP ARTICULATION IMPLEMENTATION PROCEDURES

9. ASSEMBLE AND PRINT MATERIAL

RECOMMENDATIONS

1. THAT FUNDS BE PROVIDED FOR ARTICULATION.
2. THAT A RESPONSIBLE INDIVIDUAL BE APPOINTED TO DIRECT SUCH A PROJECT.
3. THAT THE COLLEGE OF NORTHERN MARIANAS TAKE THE LEADERSHIP SINCE THEY WILL BE GRANTING THE CREDIT.
4. THAT, IF STUDENTS ARE INDEED TRANSFERRING TO GUAM COMMUNITY COLLEGE, UNIVERSITY OF GUAM OR THE COLLEGE OF MICRONESIA, THESE INSTITUTIONS AND OTHER INSTITUTIONS MOST DIRECTLY INVOLVED BE INVITED TO PARTICIPATE.
5. THAT DEFINITE TIMETABLES BE ESTABLISHED WHEN AN ARTICULATION PROJECT STARTS.
6. THAT, ONCE LEVELS COMPETENCIES ARE AGREED UPON, THE BOARD OF EDUCATION SET SPECIFIC POLICY ABOUT THE LEVEL OF MASTERY AND NUMBER OF COMPETENCIES NEEDED FOR CREDIT.
7. THAT ONE OR MORE <u>SELECTED</u> OCCUPATIONAL PROGRAMS BE INVOLVED IN THE FIRST ROUND OF ARTICULATION.
8. THAT TEACHERS BEGIN TO DEFINE THE COMPETENCIES IN THEIR PROGRAMS AND COURSES IF YOU HAVE NOT ALREADY DONE SO.

RECOMMENDATIONS (CONT.)

THE NATIONAL NETWORK FOR CURRICULUM COORDINATION IN VOCATIONAL AND TECHNICAL EDUCATION, WESTERN CURRICULUM COORDINATION CENTER AND YOUR STATE LIAISON REPRESENTATIVE, JOE JETNIL, HAVE A NUMBER OF AVAILABLE COMPETENCY LISTS TO ASSIST YOU.

9. THAT, ONCE INITIATED, ARTICULATION EFFORTS BE COMMUNICATED VIA NEWSLETTERS, CONFERENCES, INTER-CAMPUS VISITS, ETC. TO INSURE GOOD COMMUNICATION.

10. THAT APPROPRIATE PERSONNEL BE ASKED TO BECOME INVOLVED AND THAT PARTICIPATION INITIALLY BE ENTIRELY VOLUNTARY.